

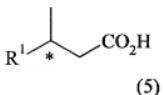
**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

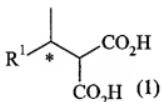
1.-6. (Canceled)

7. (Withdrawn, Currently Amended) A method for producing (R)- or (S)-3-methyl carboxylic acid represented by the following formula (5):



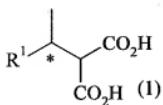
wherein R<sup>1</sup> represents an alkyl group containing 3 to 5 carbon atoms, and \* represents an asymmetric carbon,

which comprises decarboxylating (R)- or (S)-1-methylalkyl malonic acid having optical activity purity of 90% e.e. or greater, which is represented by the following formula (1), obtained by the method according to claim 8, in the presence of a highly polar solvent and/or an additive for promoting decarboxylation:



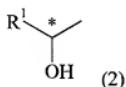
wherein R<sup>1</sup> has the same definition as described above, and \* represents an asymmetric carbon.

8. (Currently Amended) A method for producing (R)- or (S)-1-methylalkyl malonic acid having an optical purity of 90% e.e. or greater, which is represented by the following formula (1):

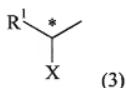


wherein R<sup>1</sup> represents an alkyl group containing 3 to 5 carbon atoms, and \* represents an asymmetric carbon,

which comprises allowing optically active alcohol represented by the following formula (2) to react with a sulfonylation agent:



wherein R<sup>1</sup> has the same definition as described above, and \* represents an asymmetric carbon, so as to obtain an optically active compound represented by the following formula (3):

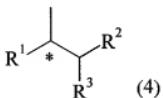


wherein R<sup>1</sup> has the same definition as described above, X represents a sulfonyloxy group, and \* represents an asymmetric carbon;

allowing the optically active compound to react with a carbon nucleophile represented by the following formula (9) in the presence of a base:



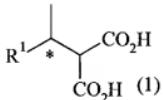
wherein each of R<sup>2</sup> and R<sup>3</sup> independently represents an ester group, a carboxyl group, or a cyano group, wherein R<sup>2</sup> and R<sup>3</sup> may together form a cyclic structure, so as to obtain an optically active compound represented by the following formula (4):



wherein R<sup>1</sup>, R<sup>2</sup>, and R<sup>3</sup> have the same definitions as described above, and \* represents an asymmetric carbon, and

hydrolyzing the obtained optically active compound.

9. (Withdrawn) (R)-1-methylalkyl malonic acid or (S)-1-methylalkyl malonic acid having an optical purity of 90% e.e. or greater, which is represented by the following formula (1):



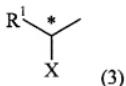
wherein R<sup>1</sup> represents an alkyl group containing 3 to 5 carbon atoms, and \* represents an asymmetric carbon.

10. (Withdrawn) The (R)-1-methylalkyl malonic acid or (S)-1-methylalkyl malonic acid according to claim 9, wherein R<sup>1</sup> represents an n-propyl group or an n-butyl group.

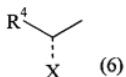
11.-19. (Canceled)

20. (New) The method according to claim 8, wherein the optically active alcohol represented by formula (2) is 2-pentanone or 2-hexanone;

the optically active compound represented by formula (3):

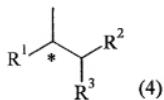


is an optically active substance represented by formula (6):

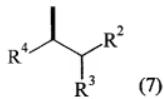


wherein R⁴ represents an n-propyl group, and X represents a sulfonyloxy group;

the optically active compound represented by the following formula (4):

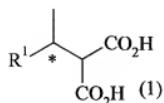


is an optically active compound represented by the following formula (7):

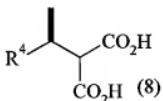


wherein R² and R³ have the same definitions as described above, and R⁴ represents an n-propyl group or an n-butyl group; and

the (R)- or (S)-1-methylalkyl malonic acid represented by the following formula (1):

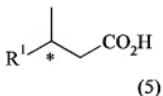


is a compound represented by the following formula (8):



wherein R<sup>4</sup> has the same definition as above.

21. (New) The method according to claim 7, wherein the (R)- or (S)-3-methyl carboxylic acid represented by the following formula (5):



is (R)-3-methyl hexanoic acid or (R)-3-methyl heptanoic acid.